

*TWO NEW SOLIFUGAE (ARACHNIDA)  
FROM ALGERIAN NORTH AFRICA*

By R. F. LAWRENCE

I have recently been sent three interesting specimens of what appear to be typical sanddune inhabiting Solifuges. Two of these specimens from the Algerian Sahara are new to science and I have great pleasure in naming them in honour of Professor Dr. Max Vachon, Director of the Zoological Laboratory of the Muséum National and Mr. Claude Junqua, research worker on the histology and physiology of these arachnids at the same institute.

Family SOLPUGIDAE.

Genus *Oparbella* Roewer.

***Oparbella junquana* n. sp.**

*Holotype*, 1 ♂, Hamada du Guir, 20 Km. from Béni-Abbès, Algeria, C. JUNQUA leg. June 1964.

*Colour.* — Chelicerae, head-plate and appendages light yellow with the exception of the following parts, which are light to dark purple : a narrow anterior border and a subtriangular marking at each antero-lateral angle of the head-plate ; tibia (except at extreme base and apex), whole of metatarsus and base of tarsus of pedipalp (metatarsus much darker than tibia) ; tibia of leg IV with faint violet darkening. Abdomen above light chocolate brown, a light circular patch at posterior apex in the middle, thoracic tergites diffused with brown, especially at the sides ; pleurites lighter brown than tergites or sternites ; ventral surface coloured as in tergites ; malleoli uniformly pale.

*Flagellum* as in fig. 1 *a* seen from the outer side, describing almost a complete circle as in *O. wernerii* (Birula), suddenly expanded into a fairly wide lamella just before the apex which is a finely drawn out point directed at little less than 90° to the main axis of the shaft ; in general resembling Roewer's figure (1934, p. 153, fig. 154B) but the shaft wider.

*Setation.* — Chelicerae above sparsely clothed with long weak setae, head-plate almost entirely without these, but a few forwardly directed setae between the eyes and 2 or 3 along the anterior margin on each side of ocular tubercule ; tergites fairly thickly covered with long setiform

hairs directed upwards or slightly forwards, ventral surface with more numerous, much shorter prone hairs.

Metatarsus of pedipalp with a few scattered cylinder bristles in its apical half, tarsus and tibia without these; inferior surface of metatarsus with a dense regular scopula of short incrassate hairs except at the extreme apices of the segment; femur with an irregular row of 4-6 long setae on the inner side inferiorly; a number of large and strong setae appear to have been lost from the dorsal surface of metatarsus and tibia. Tarsi of legs II-IV with the spinal formula of *Oparbella*. Inner surface of dorsal jaw with 4 incrassate hairs below the point of origin of the flagellum (fig. 1 b), these distinctly thicker than other similar hairs of the inner surface, the superior (distal) one bluntly pointed, spiniform, the three others decreasing progressively in thickness, tapering to a point and feathered in their apical third or half; 6 short and weak stridulatory ridges.

*Dentition.* — Dorsal jaw with the main outer row of teeth as in fig. 1 a; 4 cheek teeth following the third main tooth (fourth from the apex), the second and fourth, small the two others moderate, subequal; 3 inner cheek teeth, the two anterior large and widely separated, the third much smaller and situated close to the second. Ventral jaw much more massive, deeper and shorter than that of *O. weneri*, the two main teeth very large; the fang anterior to the first tooth with a well defined keel on its outer surface which is represented posteriorly by an irregular double row of minute granules; dorsal jaw with a similar but shorter keel on the toothless portion of the fang tip.

*Dimensions.* — Total length 37; width of head-plate 8.5, length of chelicerae 10, femur + tibia + metatarsus — tarsus of pedipalp, 15 + 14 + 13 mm.

*Remarks.* — The species resembles *Oparbella weneri* (Birula) fairly closely in the general shape of the flagellum. It differs in the detailed structure of this organ, especially the apical lamelliform expansion of the shaft; in the jaws, especially the ventral one, being shorter and deeper, with more powerful teeth. In the general shape of the flagellum it also resembles *Oparbica togona* Roewer, differing from this species in the spinal formula of the tarsi and in the number and disposition of the inner cheek teeth.

The apical transverse section of the malleoli appears to be very wide in this genus and the basal stalk very long, making the whole organ conspicuous; this is especially noticeable in the distal malleolus.

#### Note on the genus *Oparba* Roewer.

The genus was based on female specimens only, which, according to the author's description (1934, p. 484) differ from *Oparbica* Roewer only in lacking a pair of spines on the penultimate segment of tarsus IV, these being present in *Oparbica*.

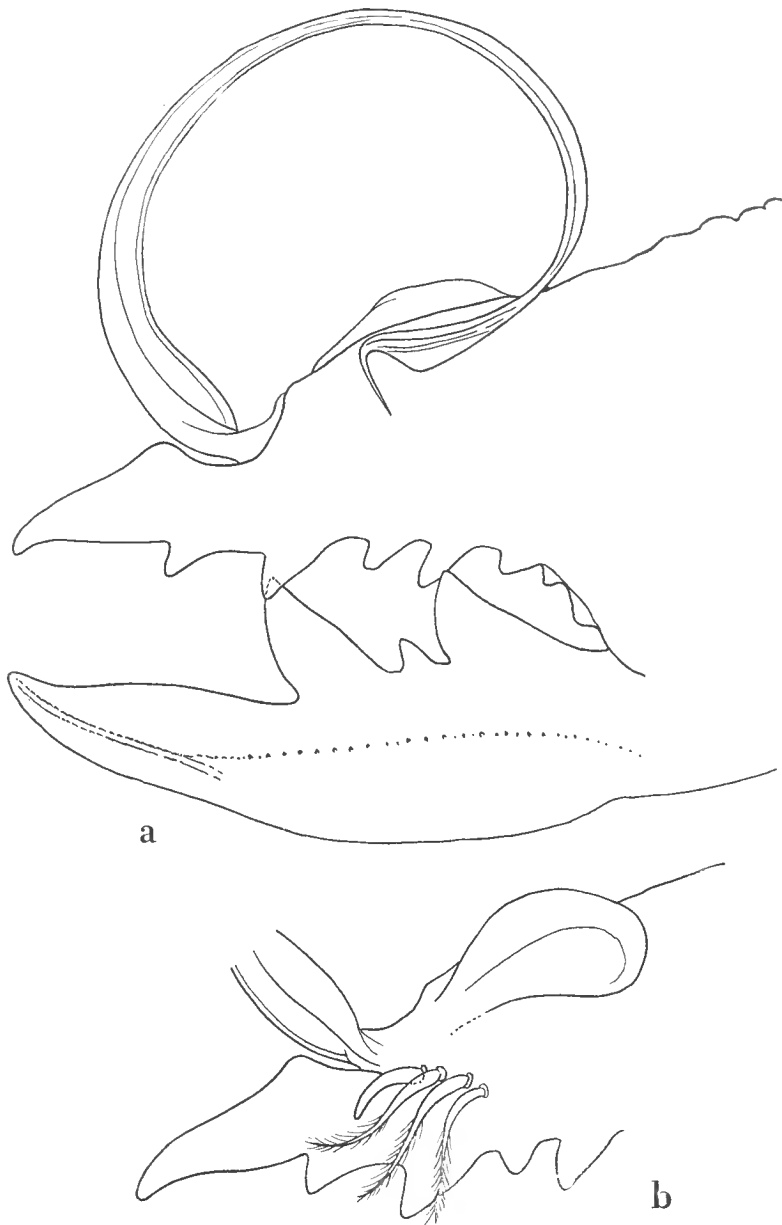


FIG. 1. — *Oparbella junquana* n. sp.

It is extremely difficult or even impossible to separate species of a given genus of the family Solpugidae when females only are involved and it is thus even more unrealistic to separate off genera on the basis of females, which only differ in the absence or presence of a single pair of tarsal spines. It would be better to synonymize *Oparba* with *Oparbica*, to which in any case it is very closely related. It would also be preferable to retain *Oparbica* rather than *Oparba*, seeing that it is based on a ♂ holotype.

Family DAESIIDAE.

Genus *Biton* Karsch.

***Biton vachoni* n. sp.**

*Holotype*, 1 ♂, Grand Erg occidental, 20 Km. from Béni-Abbès, Algeria, leg. C. JUNQUA, June 1964.

*Colour* entirely pale yellow without darker pattern markings, headplate and basal segments of leg IV with a pale pink infusion.

*Flagellum* as in fig. 2 *a* seen from outer side, oval and of normal shape for this genus, the apex when rotated forwards falling considerably short of the apex of the dorsal jaw; seen from the inner side, slightly enlarged, as in fig. 2 *b*, the margins of the two transparent folds of the inner surface where they meet at the distal apex with denticulations as in fig. 2 *c* (still further enlarged).

*Setation*. — Chelicerae above sparsely covered with long fairly strong setae, headplate with similar but fewer setae, these situated at the periphery (anterior and posterior margins and at the sides); both these segments covered with a very fine thick fur-like coating of short white hairs; abdomen with a few weak setae, much shorter and weaker than those of the chelicerae; legs with sparse hairs and a few long, fine setae. Pedipalp: metatarsus with 3 pairs of strong true spines on distal three-fifths inferiorly and a few long dorsal setae, tarsus and tibia without true spines, tibia inferiorly with two irregular rows of 5-6 long setae, femur with a similar row on inner but not outer side. Chelicerae with 6-7 weak stridulatory ridges. Stigma-bearing sternites without modified hairs (ctenidia).

*Dentition* as in fig. 2 seen from the outer side; dorsal jaw with a distinct semi-transparent lamella on its inferior edge anterior to the first tooth, ventral jaw with a similar but less developed lamella on its dorsal cutting edge; ventral jaw apparently with only 2 teeth, these large, no intermediate tooth or, if present, too small to be distinctly visible.

*Legs*. — Spination formula of tarsi II and III 1.1/0, of tarsus IV 2.2/0/2/0; all the tarsal segments of these legs with a coating of long regularly inserted setae on their ventral surfaces, forming a brush-like organ resembling that described by me in *Biton* and various other Daesiid genera

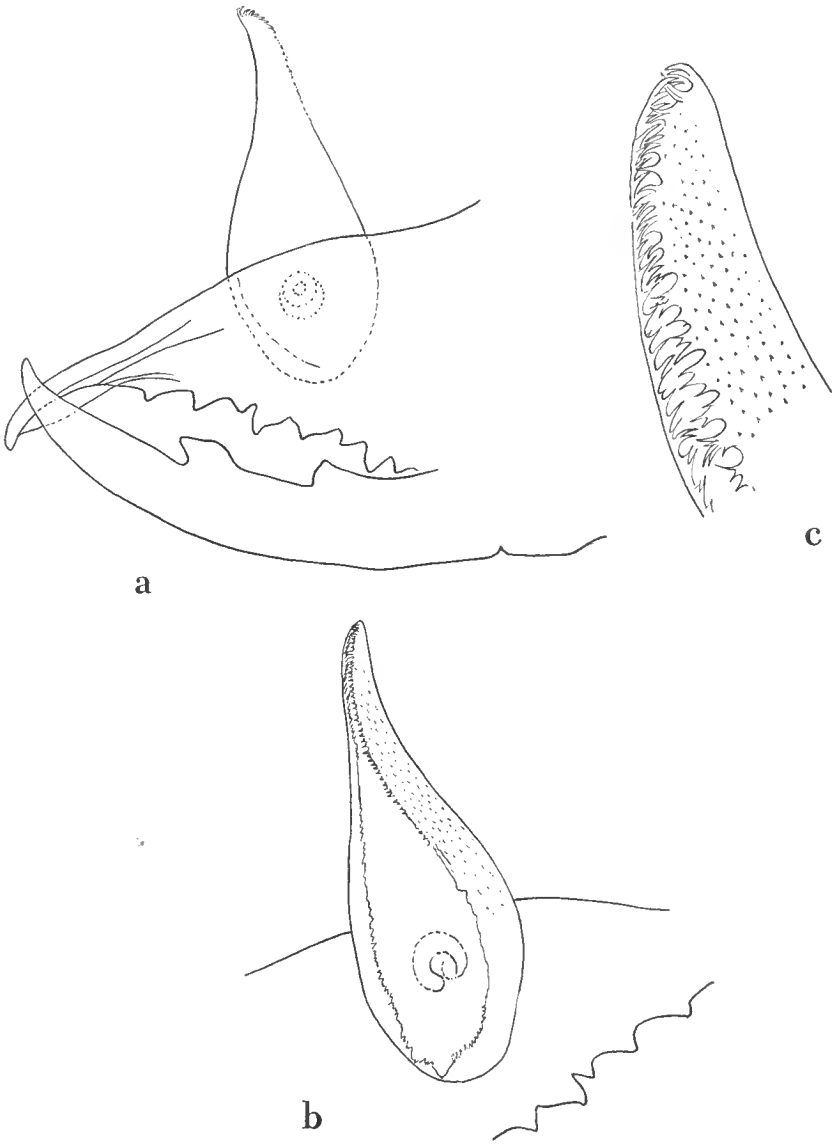


FIG. 2. — *Biton vachoni* n. sp.

from South West Africa (1963, figs 5 and 6); the ventral surfaces of the metatarsi of these legs form a contrast by the absence of such brushes.

*Dimensions.* — Total length 17.5, width of headplate 3.7, length of chelicerae 4.5, pedipalp 16 mm.

The species is most closely related to *B. tarabulus* Roewer from Tripoli. It differs in the shape of the dorsal jaw and in having the two anterior teeth of this jaw situated much further forward, so that the toothless portion of the fang is relatively much shorter. It is also considerably larger in size.

Genus *Blossiola* Roewer.

*Blossiola* sp.

1 ♀ from Béni-Abbès, Algeria, leg. C. JUNQUA, June 1964.

This will no doubt prove to be a new species of *Blossiola* when males have been found, but until then I prefer not to describe it as such.

The characters of the specimen are briefly as follows :

*Pedipalp.* — Femur with 1-4 inner spines anterior to the middle of the segment; tibia inferiorly with 6 lateral, 4 medial true spines, metatarsus with 9 lateral, 6 medial true spines; tarsus with 1 medial true spine; all these rather short.

*Dentition.* — Both jaws with 1 intermediate tooth, the teeth of both jaws large, normal, the two anterior teeth of dorsal jaw subequal. Outer (lateral) series of cheek teeth 4, very unequal, inner series with 3 teeth, the posterior much smaller than the other two which are widely separated.

*Dimensions.* — Total length 19, pedipalp 12 mm.

In Roewer's key this female appears to be nearest to *B. laticosta* Hewitt from the Transvaal and it more or less resembles this species in colouring.

Résumé

L'auteur décrit trois espèces de Solifuges capturées aux environs de l'oasis de Béni-Abbès (Sahara Nord-Occidental) et non signalées à ce jour. Deux de ces espèces, dont les mâles sont connus, ont pu être décrites comme nouvelles. Il s'agit d'une part d'*Oparbella junquana* n. sp. dont plusieurs exemplaires ont été trouvés sur la Hamada du Guir; cette espèce est voisine de *Oparbella werneri* (Birula) et de *Oparbica togona* Roewer. D'autre part, de *Biton vachoni*, n. sp. dont plusieurs exemplaires ont été trouvés dans le Grand Erg Occidental; cette espèce est voisine de *Biton tarabulus* Roewer. La troisième espèce, représentée par une seule femelle, appartient au genre *Blossiola* et s'apparente à *Blossiola laticosta* Hewitt.

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